UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/600,338	CHOI, SEUNG YOUNG
	Examiner	**Art Unit**	
	Yixing Qin	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*23 June 2003*</u>.

2a)☐ This action is **FINAL.** 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 June 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>*12/3/03, 1/8/04, 9/16/05*</u>.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

I.   Claims 1-6, 8-14, 16-20 rejected under 35 U.S.C. 103(a) as being unpatentable

over Sekikawa (U.S. Patent No. 6,498,658) .

Regarding claim 1, Sekikawa discloses a method of printing an image using an

image printing unit, which prints an image corresponding to image data read from an

external memory card, and a personal computer, which is connectable to the image

printing unit, the method comprising:

checking for or generating compressed image data in the image printing unit;

transmitting the compressed image data to the personal computer together with an

image number; (column 19, lines 39-44 – this shows that compressed image data is

transferred. Figs. 20A-G shows how a compressed image data is identified. One can

see that the header includes an ID number)

storing the compressed image data and the image number transmitted from the

image printing unit in the personal computer; (column 19, lines 39-44 – the data is

received from the digital copier by the personal computer – it would be inherent that this

data is stored in the personal computer)

displaying by the personal computer the image data transmitted from the image

printing unit; (column 19, lines 50-53) and

It does not explicitly disclose "printing at the image printing unit the displayed

image data in response to a user print request at the image printing unit."

However, Sekikawa discloses in Figs. 15-16 that images can be printed using the

printer's control panel. So it is entirely possible to view the images on the display of the

personal computer, while instructing to print from the printer's control panel.

Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to have used the Sekikawa teachings to obtain the claimed

invention.

The motivation would have been to allow an user to use a bigger monitor on a

personal computer to see images, while still being able to print them at a printer.

Therefore, it would have been use Sekikawa to obtain the invention as specified.

Regarding claim 2, Sekikawa discloses the method of claim 1, further comprising:

determining whether the memory card with the image data has been inserted into

the image printing unit and whether the image printing unit has been connected to the

personal computer, (Fig. 4A shows memory card connection. While not explicitly

stated, one can see from Fig. 1 that the digital copier is connected to the personal

computer through the serial or parallel interface. It would be inherent to know whether

the personal computer was connected.)

wherein the compressed image data is checked for or generated upon the

determining of insertion of the memory card into the image printing unit and connection

of the image printing unit to the personal computer. (column 12, lines 15-56, note

especially lines 49-56.)

Regarding claim 3, Sekikawa discloses the method of claim 1, wherein if the user

does not request to print the displayed

image data, the displaying of the image data at the personal computer continues.

(column 19, lines 45-57)

Regarding claim 4, Sekikawa discloses the method of claim 2, wherein the

determining comprises:

determining whether data stored in the memory card is the image data, if

determined that the memory card has been inserted into the image printing unit;

(column 12, lines 17-24 – the image is displayed when the memory card is inserted,

meaning there is some determination that there is image data to be displayed) and

determining whether the image printing unit has been connected to the personal

computer, if determined that the data stored in the memory card is the image data.

(Again, while not explicitly stated, one can see from Fig. 1 that the digital copier is

connected to the personal computer through the serial or parallel interface. It would be inherent to know whether the digital copier was connected to the personal computer.)

Regarding claim 5, Sekikawa discloses the method of claim 1, wherein the checking for or the generating of the

compressed data comprises:

determining whether the image data read from the memory card includes compressed image data; (column 12, lines 41-56 – from these lines, the printer would have to know that the data is not compressed since it compresses the images to produce the reduced images) and

compressing the image data, if determined that the image data read from the memory card does not include the compressed image data. (column 12, lines 41-56)

Regarding claim 6, Sekikawa discloses the method of claim 1, wherein the displaying of the image data comprises:

reading by the personal computer the image data corresponding to a user selected image number at the image printing unit and transmitted from the image printing unit to the personal computer; (column 20, lines 45-57 – although Sekikawa discloses that the user selects the image on the computer, one can see from Figs. 15 and 16 that images can be selected on the digital copier as well) and

displaying the read image data. (column 20, lines 50-57)

Regarding claim 8, Sekikawa discloses the method of claim 6, wherein the

displaying of the image data further

comprises:

transmitting the user selected image number to the personal computer, if the

personal computer is ready to receive a new image number; (column 19, lines 45-57).

and

reading by the personal computer the image data corresponding to the user

selected image number provided from the image printing unit. (column 19, lines 45-57).

Regarding claim 9, Sekikawa discloses the method of claim 1, wherein the

personal computer includes a monitor, and

the image data is displayed in a predetermined size at a predetermined position on the

monitor. (column 19, lines 45-57).

Regarding claim 10, Sekikawa discloses the method of claim 1, wherein the

image data is displayed according to a variable size at a variable position. (column 19,

lines 45-57 – although Sekikawa discloses using a reduced image, the size of the

reduced image can be altered in known ways, and would be obvious to place the image

in any suitable display position on a monitor).

Regarding claim 11, Sekikawa discloses the method of claim 9, wherein the predetermined size occupies a part of a screen of the monitor. (column 19, lines 45-57 – it is inherent that the display of an icon would occupy a part of the screen).

Regarding claim 12, Sekikawa discloses the method of claim 1, wherein the printing of the image data comprises:

reading at the image printing unit the displayed image data from the memory card in response to the user print request; (column 19, lines 53-57).

image processing the read image data; (column 4, lines 8-10) and

printing the image-processed image data. (column 19, lines 53-57).

Regarding claim 13, Sekikawa discloses a computer system printing an image using an image printing unit, which prints an image corresponding to image data read from an external memory card, and a personal

computer with a monitor which is connectable to the image printing unit, (Fig. 1)

the image printing unit comprising:

a print preparing section determining whether the memory card with the image data has been inserted into the image printing unit and whether the image printing unit has been connected to the personal computer, and outputting a determination result as a control signal; (Fig. 4A and from claim 2 above, one can see from Fig. 1 that the digital copier is connected to the personal computer through the serial or parallel interface. It would be inherent to know whether the personal computer was connected.)

a data processor processing the image data read from the memory card,

checking for or generating compressed image data in response to the control signal,

and transmitting the compressed image data to the personal computer together with an

image number; (column 12, lines 41-56, Fig. 20A-G)

a key operating section operated by a user to select the image number and

outputting a print request signal requesting to print the image data corresponding to the

user selected image number; (Figs. 15, 16) and

a printing section printing the image-processed image data received from the

data processor in response to the print request signal, (Fig. 1, item 121)

the personal computer comprising:

a storage storing the compressed image data and the image number transmitted

from the data processor; (column 19, lines 45-57 – again, it would be inherent for the

computer to store the received image data) and

a display controller reading, from the storage, the image data corresponding to

the user selected image number at the image printing unit and displaying the read

image data on the monitor. (column 19, lines 45-57)

Regarding claim 14, Sekikawa discloses the apparatus of claim 13, wherein the

print preparing section comprises:

a sensor sensing whether the memory card has been inserted and outputting a

sensing result; (Fig. 4A)

a first data detector detecting a type of data read from the memory card in

response to the sensing result; and (column 12, lines 47-56)

a connection checker checking whether the personal computer has been

connected to the image printing unit in response to a detection result received from the

first data detector and outputting a connection check control signal. (one can see from

Fig. 1 that the digital copier is connected to the personal computer through the serial or

parallel interface. It would be inherent to know whether the personal computer was

connected. Although Sekikawa just discloses what happens and does not explicitly give

part names, the functions of the various claimed parts are disclosed by Sekikawa and

would be easily implemented in a sensor or detector of some kind)

Regarding claim 16, Sekikawa discloses the apparatus of claim 13, wherein the

display controller comprises a data reader reading, from the storage, the image data

corresponding to the user selected image number, which is generated in the key

operating section and transmitted from the image printing unit, and outputting the read

image data to the monitor for the displaying. (column 19, lines 45-57)

Regarding claim 17, Sekikawa discloses the apparatus of claim 13, wherein the

display controller comprises: a position/size determiner determining a position at which

the read image data is to be displayed on the monitor and a size of the read image data

to be displayed, and the monitor displays the read image data according to the

determined size at the determined position. (While not explicitly disclosed, the display

controller for the personal computer would work similar to the display controller of the

digital copier in that it will identify an appropriate position and size for an image, like that

of Figs. 15 and 16).

Regarding claim 18, Sekikawa discloses the apparatus of claim 17, wherein the

position/size determiner varies the display position and size of the image data and

outputs the varied results to the monitor. (column 19, lines 45-57 – although Sekikawa

discloses using a reduced image, the size of the reduced image can be altered in

known ways, and would be obvious to place the image in any suitable display position

on a monitor)

Regarding claim 19, Sekikawa discloses an image printing unit, comprising:

a programmed processor controlling remote image data display and manipulation

and printing locally the remotely displayed image data. (column 19, lines 45-57 and Fig.

1)

Regarding claim 20, Sekikawa discloses the image printing unit of claim 19,

wherein the programmed processor further detects insertion of a memory card with the

image data into the image printing unit and detects connection of the image printing unit

to a personal computer, (Fig. 4A shows memory card connection. While not explicitly

stated, one can see from Fig. 1 that the digital copier is connected to the personal

computer through the serial or parallel interface.)   transmits image data read from the

memory card comprising a generated image number to the personal computer (column

19, lines 45-57) , transmits a user selected image number to the personal computer to

display the image data corresponding to the user selected image number (column 19,

lines 45-57 and Figs. 20A-G), and prints the displayed image data corresponding to the

user selected image number in response to a user print request at the image printing

unit. (Sekikawa discloses in Figs. 15-16 that images can be printed using the printer's

control panel. So it is entirely possible to view the images on the display of the personal

computer, while instructing to print from the printer's control panel. See claim 1 above

for more detail).

II.   Claim 7 rejected under 35 U.S.C. 103(a) as being unpatentable over Sekikawa

(U.S. Patent No. 6,498,658) in view of Bubie et al (U.S. Patent No. 6,453,078)

Regarding claim 7, the Sekikawa reference discloses printing images from a

memory card.

It does not explicitly disclose "wherein the reading of the image data comprises:

ignoring the image number provided from the image printing unit as a last image

number, if a previous image data is being displayed; and

reading the image data corresponding to the last image number after the

previous image data is completely displayed."

However, Bubie et al discloses in column 1, lines 45-60 that prior art techniques are known to display one image at a time. Slideshows, especially, display only one image at a time (i.e. the previous image), with the next image being ignored until the current image is displayed for a set period of time.

Sekikawa and Bubie are combinable because both are in the art of printing from thumbnails.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have used a display mechanism such as a slideshow to display only pertinent images.

The motivation would have been to allow users to focus on one image at a time if that image is deemed to be important.

Therefore, it would have been obvious to combine Sekikawa and Bubie to obtain the invention as specified.

III.   Claim 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Sekikawa (U.S. Patent No. 6,498,658) in view of Official Notice.

Regarding claim 15, Sekikawa discloses the apparatus of claim 13, wherein the data processor comprises:

a second data detector detecting whether the image data read from the memory card includes the compressed image data in response to the control signal; (column 12,

lines 47-56 – the determination would be that the image data is not compressed, since it

goes on to compress the data to create a reduced image)

a data compressor compressing the image data read from the memory card in

response to a detection result received from the second data detector; (column 3, line

66- column 4, line 7)

an image number generator generating the image number to be uniquely

allocated to the image data read from the memory card; (Figs. 20A-G)

a data transmitter transmitting the compressed image data received from the

memory card or from the data compressor to the personal computer together with the

generated image number received from the image number generator, in response to the

detection result received from the second data detector, and transmitting the user

selected image number received from the key operating section to the personal

computer; (column 20, lines 45-57 – although Sekikawa discloses that the user selects

the image on the computer, one can see from Figs. 15 and 16 that images can be

selected on the digital copier as well) and

Sekikawa does not explicitly disclose "a format converter converting an RGB

format of the image data read from the memory card into a CMYK format and outputting

the image data having the CMYK format to the printing section."

However, RBG and CMYK formats are well known in the art of printing.

Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to have used conventional color representation of images.

The motivation would have been to have compatibility when printing images.

Therefore, it would have been obvious to use known color spaces in the Sekikawa reference to obtain the invention as specified.

IV.   Claim 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Sekikawa (U.S. Patent No. 6,498,658) in view of Ito et al (6,937,356)

Regarding claim 21, the Sekikawa reference discloses a method for printing images from a memory card.

It does not explicitly disclose "wherein the programmed processor remotely controls the image data display size and position."

However, Ito discloses in Fig. 13 and Fig. 19 a display attached to a printer and how thumbnails are displayed. The layout is dependent on a size and position.

Sekikawa and Ito are combinable because both are in the art of printing images from a memory card.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have be able to remotely control image display.

The motivation would have been to allow displaying of images prior to printing them on a large screen for easier viewing.

Therefore, it would have been obvious to combine Sekikawa and Ito to obtain the invention as specified.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yixing Qin whose telephone number is (571)272-7381. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Lamb can be reached on (571)272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YQ

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